

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re the application of: Toshihisa YOKOYAMA, Ken-ichi NODA, Katsuhiro IMAI and Minoru IMAEDA

Filed: Concurrently Herewith

For: PROCESS AND APPARATUS FOR PRODUCING AN OXIDE SINGLE CRYSTAL

Box Patent Application  
Assistant Commissioner for Patents  
Washington DC 20231

I hereby certify that this paper on fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 addressed to the **Box Patent Application, Assistant Commissioner for Patents, Washington D.C. 20231** on May 14, 2001 under "EXPRESS MAIL" mailing label number **EL742732425US**.

*Elizabeth A. VanAntwerp*  
Elizabeth A. VanAntwerp

**PRELIMINARY AMENDMENT**

Sir:

Prior to examination, Applicants wish to amend the subject application as follows:

**In the Claims:**

Please rewrite claims 3, 4, 6, 12, 13, 15 and 19.

3. (Amended) A process for producing an oxide single crystal according to claim 1, wherein said oxide single crystal is cooled by blowing a cooling medium thereto.

4. (Amended) A process for producing an oxide single crystal according to claim 1, wherein said oxide single crystal is drawn from an opening of a nozzle portion provided at a tip of said crucible.

6. (Amended) A process for producing an oxide single crystal according to claim 1, wherein said oxide single crystal is of a planar form.

12. (Amended) An apparatus for producing an oxide single crystal according to claim 10, wherein the cooler has a blowing hole for blowing out the cooling medium toward said oxide single crystal.

13. (Amended) An apparatus for producing an oxide single crystal according to claim 10, wherein said crucible has a nozzle portion and said opening is provided at a tip of said nozzle portion.

15. (Amended) An apparatus for producing an oxide single crystal according to claim 10, which further comprises an after-heater, the after-heater being adapted under said cooler for controlling an ambient temperature of said oxide single crystal.

19. (Amended) An apparatus for producing an oxide single crystal according to claim 10, wherein said oxide single crystal is a planar form.

### REMARKS

Claims 1-26 are pending herein. Applicants have amended the claims to eliminate multiply dependent claims. Pursuant to Rule 121(b)(1)(iii), applicants also enclose a marked up version of amended claims showing the changes thereto. No new matter has been added. Applicants believe the case is now in condition for examination.

Respectfully submitted,

Date \_\_\_\_\_

Stephen P. Burr  
Reg. No. 32,970

BURR & BROWN  
P.O. Box 7068  
Syracuse, NY 13261-7068

Customer No.: 025191  
Telephone: (315) 233-8300  
Facsimile: (315) 233-8320

Please rewrite the following claims as follows:

3. (Amended) A process for producing an oxide single crystal according to ~~claims~~claim 1 ~~or~~ 2, wherein said oxide single crystal is cooled by blowing a cooling medium thereto.

4. (Amended) A process for producing an oxide single crystal according to ~~any one of claims~~claim 1 ~~or~~ 2, wherein said oxide single crystal is drawn from an opening of a nozzle portion provided at a tip of said crucible.

6. (Amended) A process for producing an oxide single crystal according to ~~claims~~claim 1 ~~or~~ 2, wherein said oxide single crystal is of a planar form.

12. (Amended) An apparatus for producing an oxide single crystal according to ~~claims~~claim 10 ~~or~~ 11, wherein the cooler has a blowing hole for blowing out the cooling medium toward said oxide single crystal.

13. (Amended) An apparatus for producing an oxide single crystal according to ~~claims~~claim 10 ~~or~~ 11, wherein said crucible has a nozzle portion and said opening is provided at a tip of said nozzle portion.

15. (Amended) An apparatus for producing an oxide single crystal according to ~~claims~~claim 10 ~~or~~ 11, which further comprises an

after-heater, the after-heater being adapted under said cooler for controlling an ambient temperature of said oxide single crystal.

19. (Amended) An apparatus for producing an oxide single crystal according to ~~claims~~claim 10-~~or 11~~, wherein said oxide single crystal is a planar form.